ABSTRACT OF THE DISCLOSURE

In a scale device including a scale unit (4) and detector (5), the scale unit (4) includes a scale member (6) formed from a long material and having at least a pair of fixing holes (12) formed therein across a position signal carrying area (11) defined thereon and which carries positions signals, and a case member (7) housing the scale member (6) therein and having formed therein a pair of fixing holes (15) through which there is penetrated a fastening member (13) to be screwed into a mounting hole (10) formed in a stationary part (2) of a machine to which the scale device is to be installed. The detector (5) is fixed to a moving part (3) of the machine, which moves relative to the stationary part (2), and includes a sensor (29) which moves oppositely to the position signal carrying area (11) on the scale member (6). The scale unit (4) is fixed to the stationary part (2) with the scale member (6) and case member (7) being fastened together by the fastening member (13). Thus, the scale member (6) different in linear expansion coefficient from the stationary part (2) can be installed to the latter with a high precision, and the scale device can make a measurement with a high accuracy, independently of environmental conditions.